

## ABSTRACT

A tabular form element arrangement data, which describes the arrangement of various component elements constituting a production system along the work flow in a combination of process identification names with component element names, is prepared. Element definition files describing programs for simulating the operations of various component elements are prepared for various component elements. Program preparation means sequentially reads component element names combined with process identification names from the element arrangement data and sequentially reads the element definition files corresponding to the read component element names. Then, a variable array containing variables described in respective element definition files is prepared and at the same time, an initial process program array containing programs described in respective definition files and a simulation program array are prepared. Thereafter, the initial process programs contained in the initial process program array are executed to correspond variables referring to each other and the operations of various component elements constituting a production system are simulated by executing a series of simulation programs contained in the simulation program array.